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A COMPETENCY-PERSONAL ATTRIBUTE OPINIONNAIRE
FOR VOCATIONAL BUSINESS EDUCATION TEACHERS

by

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A THESIS

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The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies for acceptance, a thesis entitled, "A Competency-Personal Attribute Opinionnaire for Vocational Business Education Teachers," submitted by Doris Christine Gemeroy in partial fulfillment of the requirements for the degree of Master of Education.



ABSTRACT

The purpose of this study was to investigate whether vocational business education teachers with work experience and vocational business education teachers without work experience perceived differently the technical-social aspects desired of students by business and industry for successful employment in business occupations. It was hypothesized that the way vocational business education teachers perceived the business world would be related to their preparation for teaching, this preparation being either wholly theoretical or theoretical and practical. It was further hypothesized that, if a difference in perception should exist between the two groups of teachers in vocational business education, this difference might be related to such variables as: academic qualifications, source of technical qualifications, years of teaching experience, percentage of time spent teaching vocational business education subjects, business education subjects taught, and sex.

Subjects involved in this investigation included teachers of vocational business education currently teaching in the secondary schools of Alberta. Approximately two-thirds of the sample had work experience and the remaining one-third did not.

The instrument used to obtain data for analysis was specifically developed for this study. It was composed of 60 items which were categorized equally into two important facets of the teaching of vocational business education subjects--competencies and personal attributes. A teacher questionnaire pertaining to personal data was also included.

Every subject in the two groups of vocational business education teachers completed a forced sort of the cards, placing the cards into nine ordinally numbered piles on the basis of importance as perceived by the sorter. The purpose of this was to determine whether the vocational business education teachers with work experience sorted differently than did vocational business education teachers without work experience. The results of the individual sorts were correlated with each other and subjected to factor analysis. The factor loadings were then analyzed using cutting scores.

This investigation did not reveal any significant difference between the scores obtained by those vocational business education teachers with work experience and those without work experience because neither of these two groups loaded more heavily on one or the other of the two factors requested. This would seem to indicate that no difference existed between the perceptions of these two groups of vocational business education teachers on the basis of their having or not having had work experience.

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CHAPTER I

THE PROBLEM

I. INTRODUCTION

The task of teachers, under the system of universal education in Canada, has been to guide or "socialize" children of diverse backgrounds, varying abilities, and aspirations to take their place in adult society. Through education in the school, both academic and vocational, children acquire knowledge, skills, values and attitudes, and interests that aid them in preparation for a world of work and leisure. (Parsons, 1964, pp. 130-131; Withall, 1963, p. 687)

As indicated by Russell (1965, p. 65), vocational education was originally instituted in the secondary schools to train students in the specific skills needed for employment directly following high school graduation. Business education, as a specialized area of vocational education, prepared students for office employment in business and industry. This preparation included the teaching of such competencies as typewriting speed and accuracy, shorthand facility, filing, and bookkeeping. (Douglas, 1963, p. 17)

Formerly it was required that business education teachers emphasize these skills to prepare students for a lifetime job at a specific task. Today, however, with the

rapid shifting of emphasis on many of the skills due to technological innovations and the fact of obsolescence, various authorities indicate that training for competency or performance in one area alone is not enough. Arnstein (1964, p. 49) makes reference to this fact in the following statement.

On the basis of incomplete information about future job opportunities and skill requirements, teachers and counselors must prepare young men and women for gainful employment as well as meaningful participation in an increasingly complex society.

Sanburn (1967, p. 32) supports this view in his statement that

we must develop the student's attitudes as well as his competencies. It is an accepted principle that individuals may require retraining or upgrading a number of times during his lifetime.

In a specific statement concerning business education, Russell (1965, p. 72) suggests that "Stenography will probably become a rare skill. Bookkeeping may become a subhead to computer programming" The Department of Education of Alberta has also recognized that occupational competency includes not only the development of skills for entry into initial employment, but also includes the development of the ability to get along with others and the ability to adjust to changing conditions. (Senior High School Curriculum Guide, 1965, p. 5)

To implement successfully this broadened concept of business education preparation of secondary students, Rowe (1967, p. 26) indicates that the teacher should have a background of both teaching and business experience.

The business teacher on any level must have a philosophy of work education and some very direct and active participation in the world of work. Only thus will he be able to appreciate the challenges his graduates will encounter when they enter this world.

Thus today's business education teachers, both male and female, through general education together with an adequate and relatively recent participation in business or industry, would develop a philosophy that enables them to impart to their students, not only the necessary competencies for entry into business occupations, but also knowledge of the abstract attributes necessary to prepare these students for continual adjustment to a changing work environment. Lomax (1964, p. 1) states that

If business teachers are actually to be real teachers of specialized skills and techniques, they need to accept and apply extensively a philosophy of business education which motivates them to relate their teaching specialties as much as possible to the functional operations of the business economy.

During the course of classroom interaction, Tennyson (1967, p. 28) suggests that the teacher and the student must

. . . learn to observe subtle, psycho-social aspects of the work situation and the person performing in the occupation--the role expectations and the role relationships, the

value commitments of those engaged in the occupation, and the status arrangements within the work milieu.

Dr. John L. Rowe, a member of a panel of business educators discussing factors in the training of qualified teachers, stated that business and office teacher educators should constantly be aware of the fact that their student teachers must be work oriented and that work experience should be as necessary a prerequisite for business-teacher certification as is student teaching. He concluded that the time was imminent for assessing the effectiveness of office experience in business and office teacher education. (Rowe, 1967, p. 26)

II. STATEMENT OF THE PROBLEM

This study sought to determine whether vocational business education teachers with work experience and vocational business education teachers without work experience would perceive differently the work attributes desired of students by business and industry for successful employment in business occupations. A Competency-Personal Attribute Opinionnaire was developed by the researcher, composed of technical and social skills considered important by business and industry to be acquired by vocational business education students. This Opinionnaire was administered by the researcher to two groups of vocational business education

teachers in the Province of Alberta--teachers with a work experience background and teachers without a work experience background. While it was necessary to develop the instrument used in this study, the development of the instrument did not constitute the primary purpose of the study. The purpose of the instrument was to serve as a criterion using competencies and personal attributes considered important by business and industry.

Thus by sampling two groups of vocational business education teachers--teachers with work experience and teachers without work experience--data could be obtained to determine differences in perception. The problem could be stated in the following form to provide an operational base for the researcher. Does a significant difference exist between vocational business education teachers with work experience and vocational business education teachers without work experience as to the perception of the relative importance they place on concepts relating to technical-social skills? Further, if such a difference does exist, is this difference related to such variables as academic qualifications, source of technical qualifications, years of teaching experience, percentage of time spent in the teaching of business education subjects, business education subjects taught, and sex?

In connection with this study, there was no attempt to determine the relative effectiveness of the vocational

business education teacher. While authorities such as Dr. John L. Rowe stressed the fact that teachers of business education should have business experience, a search of the literature revealed that no research had been done to determine what difference, if any, that work or business experience made in the teaching of business education subjects. Did the teacher with work experience develop a philosophy that enabled him to go beyond the teaching of competencies or technical skills into the realm of the abstract occupational and work qualities--the social or personal attributes--desired in increasing measure by business and industry today? By investigating if there was a difference or variation in importance in the classroom teaching as indicated by the two specific types of vocational business education teachers relative to competencies and personal attributes, it was hoped that some insight might be gained which would be of value in further research in the area of the desirability of work experience.

III. SIGNIFICANCE OF THE PROBLEM

Business education, by its very nature, has always been in close contact with business and industry. In this role, vocational business education in the secondary schools has, accordingly, attempted to meet the requirements as set forth by business and industry for the business education student desiring entry into business occupations.

Formerly, business firms stressed stability of values and employee loyalty with skills and competencies being correspondingly known and stable. Because of the relative stability, it was possible for the business education teacher to keep abreast with the changes in business. As stated by McKinnon (1967, p. 5)

. . . people were trained to deal with situations which they could reasonably expect to remain basically unchanged throughout their active careers.

Questionnaires or personal interviews with businessmen and trade literature could keep the teacher aware of requirements indicated by business as important and necessary for student success in a future work situation. Teachers knew that the objectives of business education included emphasis on skill development in typewriting, shorthand, handwriting, and business fundamentals. (Douglas, 1963, p. 17)

No such stability exists in business today. While business may know what it requires of new employees "today," it cannot say the same for "tomorrow." Knowledge of specific sets of skills and procedures may no longer serve the individual for all of his working life. The rate of technological innovation may make his skill obsolete and may require his retraining for another occupation, not once but several times throughout his working life.

. . . the modern organization places highest importance on the worker's ability to adapt to modifications of all kinds--whether these involve technological innovations in the work

process, changes in personnel, or revisions of company policies and purposes. (DeCarlo, 1966, p. 15)

The above statement by DeCarlo is supported by McKinnon (1967, p. 6) when he compares rate of change in the past with the dynamics of change today.

All this pales into insignificance compared to the speed of change in our own day . . . Products, techniques, methods of doing business, communication, transportation all change at a rapid rate. Training must prepare individuals to face an unending novelty of conditions.

It appears that the only thing that industry can be sure of is "change" itself. For this reason, most of the business world specifies that today its employees need the comparatively abstract occupational and working qualities as well as the competencies. Schelsky (1961, p. 31) emphasizes that

. . . these general and abstract qualities of industrial and office work must not be confused with personality and character values. These abstract qualities represent an intermediary behavioral stratum between specialized occupational skills and knowledge, on the one hand, and general personality formation, on the other; . . . This intermediate stratum is the one that gives meaning to behavior in modern work; in it are found fulfilment and satisfaction, self-affirmation, and acknowledgment of professional and social achievements.

No longer is business content with only skill and loyalty from its employee. It asks that youth be prepared to look at the world of work not just from the viewpoint of offering

a skill, but also of offering himself as an "adjusting" member of a social organization.

In a recent article, Gross (1967, pp. 417-422) speaks of the four broad types of preparation for work today that are directly applicable to business education. The first is preparation for life in an organization which involves authority principles, the quest for security, impersonality of its members, routine, conflicts, mobility, and the factor of demotion. The second is preparation for a set of role relationships with authority and with peer groups, both formal and informal. The third preparation is for a level of consumption where the job is a source of identity and pride as well as a means of making a living. The fourth type of preparation, and the one possibly associated most with vocational business education, is preparation for occupational career. This must be thought of in terms of "a set of basic skills or orientation that will serve the individual in any work that he might be confronted with in the course of his whole life." (Gross, 1967, p. 421) In discussing the changes and challenges in American education, Russell (1965, p. 47) states that the greater need appears to be to learn how to think, how to judge and adapt, and how to perceive rather than to learn how to do things and how to perform; and this involves education of the character as well as education of the hand and mind.

The above viewpoints indicate that a fundamental change has taken place in the way the individual looks out upon the world and in the way the world looks upon him. Today, education for skill alone cannot guarantee success in an occupation that may vanish. In addition, education must include an increasing emphasis on the transmission of abstract or intangible occupational and working qualities to prepare students for today's social organizations. Awareness and knowledge of the two-fold purpose of business education in the secondary schools is important to the vocational business education teacher if he is to prepare his students according to current philosophy.

Several educational authorities have indicated that a business education teacher with a practitioner's knowledge of social roles in organizations is desirable to educate students in the competencies and attributes needed for adaptation, flexibility, and desire for continuous learning. The Report of the Royal Commission on Education in Alberta (1959, p. 143) states

The shortage of adequately qualified teachers for business education is acute. In addition to teacher training, familiarity with business and actual business experience is essential. Specialists' certificates without experience would seem to offer little hope of good teaching in the business education world.

A more sweeping statement which includes all teachers, not only business education teachers, is made by Weber (1954, p.92).

Many teachers would be surprised to discover that the development of appropriate attitudes toward work, basic values, and other general patterns of conduct was assigned far greater value by those who manage industry and business than the ability to memorize or to recall facts and information . . . Work experience in business and industry would give teachers a new insight into the needs of our people and hence would be likely to result in reexamination of the methods, materials, and scope of activities in the schools.

Within the field of education, authorities have given heed to the wishes of business and to the findings of sociology by emphasizing the desirability of having vocational business education teachers with business experience. It has been implied that teachers, through actual participation in varied work situations, gain knowledge of actual inter-relationships and happenings that can facilitate or hamper business proceedings. This knowledge, in turn, can be transmitted to students through action or example by the teacher in planned work situations.

Business and industry, sociology, government, and education have pointed out that, for today's changing technological world, greater emphasis must be placed on those abstract attributes that will enable the business education student to adapt successfully to programs of retraining or upgrading of skills and to the learning of skills in occupations that may not even yet exist. This study, using a list of items composed of an equal number

of competency items and personal attribute items, seeks to determine if there is a difference between vocational business education teachers with work experience and vocational business education teachers without work experience determined by the way they perceive the items in relative importance to each other.

IV. STATEMENT OF HYPOTHESES

The following hypotheses were tested in this study:

(1) Vocational business education teachers with work experience and vocational business education teachers without work experience will rate differently items on the Competency-Personal Attribute Opinionnaire.

(2) If a difference is found to exist between the groups used in the testing of Hypothesis I, is this difference related to such variables as:

- (a) academic qualifications,
- (b) source of technical qualifications,
- (c) years of teaching experience,
- (d) percentage of time spent in the teaching of business education subjects,
- (e) business education subjects taught, and
- (f) sex?

V. DEFINITION OF TERMS

Business Education

Business education refers to that part of vocational education in the secondary schools that concerns itself with

the preparation of students in specialized competencies and with the development of personal attributes for entry into office and business occupations. (Lomax, 1964, p. 1)

Business or Work Experience

Business or work experience applies specifically to vocational business education teachers who have participated in an office task or job in a business or industry that has given them their accustomed means of livelihood.

Competencies

Competencies refer to the technical skills and knowledge in vocational business education subjects, in English, in arithmetical fundamentals, and in the work habits necessary for entry into business occupations. (Douglas, 1963, p. 17)

Personal Attributes

This term refers to the abstract or intangible occupational and working qualities that form in a person a type of latent disposition or kind of background on which to perform office activities. These intangible social qualities cannot be taught directly but may be acquired by vocational business education students through practice and work in activities related to office tasks under the guidance of or from the example set by vocational business education teachers. (Schelsky, 1961, pp. 35-36)

CHAPTER II

REVIEW OF RELATED LITERATURE

The purpose of this study was to determine whether variations did exist between vocational business education teachers with work experience and vocational business education teachers without work experience in the manner in which they perceived the relative importance of items relating to two aspects of pupil preparation for entry into the working world. Work experience in business or in industry could, quite conceivably, influence teachers as to the importance they attached to items of competency and personal attributes.

A search of literature was made relating to the influences of past experiences on the individual's behavior in today's changing society and behavior at work in particular. Literature was available regarding behaviors deemed desirable and important for success as an office worker. Sources were also available stating the desirability of having a vocational business education teacher with work experience or a practical knowledge base when communicating with students in the area of competencies and personal attributes. While no studies were found that related specifically to variations or differences that work experience might make in the teaching of business education subjects, studies were examined as to

the effect of work experience on people. The review of literature provided guidelines for the researcher in determining the two areas where variations in teaching might be expected to exist between vocational business education teachers with work experience and those without work experience, the areas being competencies and social or personal attributes.

II. SOCIETY, BUSINESS, AND TEACHERS

Rapid change in all phases of production, goods, and services through technological innovation, while providing welcomed ease and convenience for people, has wrought changes in society today. Linton (1945, p. 81) points this out.

Under the necessity of reorganizing our social structure to meet the needs of a new technology and of a spatial mobility unparalleled in human history, our inherited system of statuses and roles is breaking down; while a new system . . . is slowly evolving.

New cultural patterns, or standards of behavior, are being built with a focus on the role of the individual in his social and working environment.

Since an individual will occupy positions in social systems at every stage in his life, he will need to acquire the appropriate role expectations and behavior for many positions. (McDonald, 1965, p. 430)

To live and adapt successfully in today's technological society, the individual must be trained in new patterns of habitual response to meet new or altered circumstances in his vocational lifetime. Gagné (1962, pp. 82-91) indicates that, with a rise of occupations requiring a high level of knowledge and a low level of manipulative skill, new forms of occupational analysis based on factors other than "operations" or "jobs" are needed. Another psychologist, Ausubel (1966, p. 66), makes a general statement which is pertinent to the field of vocational business education.

Thus the emphasis that is placed on intrinsic motivations for learning should not be interpreted as to deny the importance of developing extrinsic motivations. The need for ego enhancement, status and prestige through achievement, the internalization of long term vocational aspirations, and the development of such implementing traits as responsibility, initiative, self denial, frustration tolerance, impulse control, and the ability to postpone immediate hedonistic gratifications, are, after all, traditional hallmarks of personality maturation in our culture; and educational aspirations and achievement are both necessary prerequisites for and steppingstones to their vocational counterparts.

Because the primary purpose of vocational business education is to prepare students for initial employment, the instructional program is based on the requirements and practices of the business world.

Technological development has tended to increase the importance of related instruction in vocational training. Knowledge and understanding of

the processes involved in a job or occupation have become as important as competence in the manipulative skills. (CIRF, 1964, p. 1)

Society as a whole and business in particular offer suggestions and guidance to vocational business education teachers. Through literature and surveys or through practical experience, teachers can be guided in their preparation of the secondary students in vocational business education.

Society and Education

Together with a greater emphasis on communications and techniques of communication, a proliferation of uses of electronic equipment, use of control methods in production, and a rise in service occupations, has come a change in the relative importance placed on the individual interacting with this changing environment. There is now a preoccupation with the morale and personality of people at work, at leisure, and at school. The personality of the man controlling the machines--his attitudes and behavior as he interacts with others--has become an important ingredient for an individual's success today. There is now a pressure toward social competence, and a somewhat lesser emphasis on technical competence. Parsons (1964, p. 130) speaks of the individual as having a competency consisting of two components,

. . . the first being competence or skill to perform the tasks involved in the individual's role, and the second being "role-responsibility" or

capacity to live up to other people's expectations of the interpersonal behavior appropriate to these roles.

It is the responsibility of society to change the behavioral patterns of the individual into patterns that are appropriate to a functioning society. An individual's behavior often is an indication of his adjustment to and his identification with the social system.

Behavioral changes are important because only when such changes occur do we have evidence that learning occurs. (Travis, 1959, p. 15)

The prime importance of early training and education is emphasized by Linton (1945, p. 33) in respect to the values held by an individual and his patterns of habitual response when confronted with a new situation.

. . . the individual will react to it not only in terms of its objective reality but also in terms of attitudes, values and knowledge which he has acquired as a result of his past experience.

The behavioral patterns built up from past experiences thus can determine or influence the kind of experience a person will derive from the new situation. He will, in light of past experiences, appraise a new situation and form an opinion as to anticipated results before making an overt response.

From experience insight may be gained and insight makes it possible to foresee, with varying degrees of certainty, the way the future will develop. (McKinnon, 1967, p. 7)

Krech (1964, p. 80) states that "Because of his particular life experiences, an individual may acquire new values and goals which dominate his life." In a series of controlled experiments on college students, Breer and Locke (1965, p. 10) attempted to show in what way differences in task experiences could help account for differences in what men believe, prefer and value. These psychologists propound the theory that

in working on a task an individual develops certain beliefs, values and preferences specific to the task itself which over time are generalized to other areas of life
(Breer and Locke, 1965, p. 10)

The attitudes, beliefs, and preferences--the personality--of the adult at work and at leisure have their background in the attitudes, beliefs, and preferences of the child. The task of the school is to expose the child to a variety of planned experiences through instruction

not only in the behavior which will be adequate in various situations but also in the cues by which these situations are to be recognized. Although these imitative responses lack the speed and certainty which come with repeated experience, they are exceedingly useful to the individual in meeting emergencies. (Linton, 1945, p. 97)

In this milieu, the communicator who has prestige with his audience can exert influence on today's youth to effect changes in attitudes and opinions in the desired direction.

Attempts to change attitudes consist essentially in communications designed to persuade individuals to adopt a new attitude position. The

influence of these communications is enhanced by such factors as the prestige and credibility of the communicator. (McDonald, 1965, p. 381)

From a functional point of view, the school as a communications centre is an agency "through which individual student personalities are trained to be motivationally and technically adequate to the performance of adult roles." (Parsons, 1964, p. 130) It is in his role as communicator that the vocational business education teacher, with his professional training and his experience and knowledge of business plays an important role.

Business and Business Education

To determine what student experiences are necessary and desirable to prepare him for successful participation in a business occupation, the teacher must be aware of current and future trends in business. Surveys of business firms have been made by educators and businessmen to ascertain what skills and what levels of skills are required of the beginning office workers. Surveys have also revealed information as to what personal qualities or attributes contribute to the effectiveness of employees at work.

In a study on the standards of recruitment for office employees in Nashville, Tennessee, Nix (1961, pp. 14-15) reported that 40 correct words a minute would meet the minimum requirement for the beginning typists. Required

shorthand speed was approximately 80 to 100 words a minute with about 2 per cent error allowance in transcription.

A questionnaire survey was conducted by Crews (1961, pp. 11-14) which involved 18 business firms employing approximately 3,100 office workers in Jacksonville, Florida. Specifically, data was requested as to job classification, the desired skills appropriate to each job, and a description of the personal qualities that contributed to employee effectiveness. In the area of skill requirements, Crews' findings were much the same as those reported by Nix above. Crews reported that, of some 30 personal qualities mentioned by businessmen as being qualities that should characterize their employees, the most frequently mentioned were: cooperative spirit, loyalty, pride in personal appearance and work, ambition, self-reliance, and punctuality.

Lists similar to this one have been submitted previously on numerous occasions by various individuals and groups. The significance of this fact is primarily in the repetition with which it reoccurs. Businessmen are saying over and over again that those intangible, unmeasurable human traits are vitally important in office employees. (Crews, 1961, p. 13)

Another educator, Barnard (1961, p. 6) discusses the development of good personal qualities.

One of the most important requisites for success is the acquisition of a good business attitude. Some call it professionalism; others label it personality or leadership; company-mindedness, initiative, dependability, foresight, or persistence. Regardless of nomenclature that is

applied, it is that intangible trait that goes far beyond the description of the job, and, for that matter, beyond the call of duty.

In a survey of Alberta businessmen, Beere (1959, p. 32) found that

skill subjects of business education (typewriting, shorthand, bookkeeping, and transcribing machine training) were generally shown next in importance after the fundamental school subjects and personality training.

A survey of management personnel by Silvoy (1965, pp. 14-15) was concerned with finding out what factors contributed significantly to a stenographer's success in meeting office standards and in personality traits. Office managers found stenographers competent in skills and techniques acquired at school but incompetent in duties that new employees acquire mainly through job experience. The office managers also stressed that getting along with others, being ambitious, having a will to work, and taking pride in their work and appearance were very necessary qualities.

A businessman, R. W. Purves (1967, pp. 69-71) conducted a research in a large government concern; and interviewed representatives from ten major employer industries, fifteen recently graduated employees, and members of employment placement organizations to appraise the business education received in secondary schools. He found that employers, while showing a fairly inconsistent pattern

regarding skill and competency requirements, did establish some common viewpoints, such as

. . . ability to work is greater than the desire to do it well . . . The skill the employer would like to see improved is "communicative skills"--in writing, in speaking to others and in using the telephone . . . Employers believe that graduates have insufficient knowledge of work practice and work environment. (Purves, 1967, p. 70)

The employees and the employment placement personnel interviewed by Purves expressed somewhat the same views. While it appeared that employers could be criticized for not knowing what they wanted in new employees, it was also revealed that the recently-employed interviewees had done "little appraisal of their skills and attitudes in relation to their jobs and the demands of the work world." (Purves, 1967, p. 71)

The foregoing indicates that vocational business education must prepare students in two ways for entry into a life of work. The first is the development of job techniques and skills used in particular types of jobs combined with a working knowledge of related jobs and skills. It is here that the teacher's responsibility is one of drill in the manipulative skills, such as typewriting and shorthand. In conjunction with drill in these technical skills is the training of the student in the ability to communicate clearly and concisely. The second deals with the area of personality--social competence, attitudes, beliefs, role

expectations, or related instruction--an area being given increasing attention today. This area of preparation is often best transmitted to students through example that can be imitated, or through task experiences provided by the teacher who gives his students planned background situations or cues from which the students can draw when confronted with varying work situations.

The present rapidity of technological changes has made it essential to have teachers who are capable of adapting their knowledge and teaching to the new processes, practices, and procedures in various business activities. (CIRF, 1964, p. 13) A successful vocational business education teacher is one who has the ability to make the business education subjects come alive and become a reality for the students. A concept of the reality of work instills in the student an awareness of the practical nature of various occupations. In a research of the cognitions of college students about jobs, it was noted by Rosenberg, as reported by Krech (1964, p. 132), that ". . . it is clear that a person's choice of a career reflects his knowledge about the world of work . . . his ideas of the nature of various occupations . . ." and also the college students' knowledge of what is required of them-- ". . . the abilities and skills required, their (the jobs') demands and rewards, their prestige." It would thus appear that the vocational business

education teacher should acquire in some manner, whether theoretical or practical, a practitioner's knowledge of organizational structure, both formal and informal, and the role of the worker therein if he is to direct the students toward the goal of becoming a successful member of our productive society.

The Vocational Business Education Teacher

Technological change requires a change in behavior of the individual at work, with this change of behavior being instituted at the school level. There is, then, a need for vocational business education teachers who are capable of adapting their knowledge to rapidly changing conditions. The students derive their experiences and their knowledge about the nature of work from the teacher; and it is for this reason that the background experience or the attainment of the teacher's knowledge of work is important. The philosophical writings of business educators are giving this aspect a great deal of attention today. The way business education teachers might attempt to carry out the goals they have set and the way they would label their educational values and practices might depend on the way they perceive the business environment. As previously indicated, the values are partly determined by past experience and it is from past experience, whether theoretical and/or practical, that the vocational

business education teachers draw when teaching business education subjects. The question of whether or not a teacher's preparation can be wholly theoretical combined with vicarious experience about the business world or whether theoretical experience must be supplemented with practical experience provides concepts each of which has its proponents.

At a seminar of vocational educators, it was emphasized that

all teachers, including those teaching highly technical subjects, need to be aware of the social, economic, and other aspects of industrial life. (CIRF, 1964, p. 13)

Another proponent of the educational concept that business teachers must have had practical experience in the working world is Jack W. Coleman.

. . . thus to achieve the qualitative and quantitative objectives faculty members must have broad business backgrounds. Those who do not should be required periodically to find work . . . which will provide a test bed for their classroom theories. (Coleman, 1967, p. 22)

Crawford and Kinzey (1967, p. 21) indicate that business education teachers need office experience for a number of reasons.

1. He needs this training as an aid in mastering certain office duties, such as the handling of mail, filing, and reception work that have not been included in other courses.

2. He needs office experience to provide him with refresher training in once-learned understandings and skills that are partially lost if not used constantly.
3. He needs to integrate the old and the new understandings and skills by means of a series of realistic office assignments.
4. He needs office experience to guide him in the development of his own personal qualities so that he will have a better insight into the needs of his future students in this area of their training.
5. He needs office experience most of all so that he may have a better understanding of the whole procedure of the office rather than just a part of a particular process.

A business teacher who has had business experience in a modern business office should be able to meet his classes each day with confidence because he understands fully the office occupations which his students will enter.

Sicklebower (1960, p. 31), reporting research on the outcomes of business education teacher work-experience programs, concluded that learning the importance of relating specific activity to the entire operation of a business made the teachers become more conscious of procedures.

The findings of a study of Oklahoma business education teachers, in 1964-65, indicated that Oklahoma business education teachers were weak in recency of office experience. This study concluded that the major concern of business educators, particularly of those educators in Oklahoma, should be to find ways to enable significant numbers of business teachers to gain the needed office experience. (Ladell, 1967, p. 30)

A California study of business education teachers in their first year of teaching found that a greater depth of subject matter in business would be helpful. These teachers felt better qualified in the skill subjects, however, than they did in the basic business education subjects. This study concluded that business teachers needed as much depth of subject matter in the business subjects as could be provided. (McCullough, 1966, p. 129A)

The Pamphlet, "Vocational Education," issued by the Faculty of Education, University of Alberta, states that admission requirements to the vocational education teacher training program of the Industrial and Vocational Education Department include trade training as verified by a recognized certificate of Qualification as a journeyman for a designated trade or equivalent for a non-designated trade--which would include office experience. (Vocational Education)

Industry supports this viewpoint as indicated by DeCarlo and Robinson (1966, p. 19) when they speak of educational programs in industry.

In one company, individuals assigned to the educational program are periodically transferred to gain experience in the actual working environment. They return to their teaching tasks with a better understanding of their subject matter and a revitalized competency in their technical specialty. Only by constant attention to the quality of the teaching staff and by the development of firm programs for occasional work experience will management insure that what is taught is of maximum value to the workers and to the company.

In addition to the desirability of work experience to personnel, it is also said that the value of experience is not so much in its length as in its variety.

In management, thirty years of experience does not count for much if it merely means ten times three of the same kind of experience. It is exposure to a variety of greatly differing situations that makes experience a treasure-house. (McKinnon, 1967, p. 5)

In direct opposition to those authorities who expound on the virtues of practical business experience, there is a study that indicates that perhaps too long an experience in the business environment or perhaps inappropriate experiences might be more harmful to a business education teacher than just a purely theoretical or a minimum background of work experience. In a doctoral dissertation at Oregon State University, George Storm (1966, p. 1288A) found that the average low-success instructor had 4.1 years more of industrial experience than did the high-success teacher.

Studies by Kohn (1959, pp. 364-365) and Miller (1961, pp. 86-97) indicate that industrial workers had pragmatic orientations. Workers tended to have limited perspectives, liking specific action with interest in the end result rather than interest in the planning of action. A study by Rose (1967, p. 57) examined the extent to which industrial or office workers who became vocational education teachers

could be liberalized by exposure to university curriculum and environment. He found that

the mean age level of teachers recruited from industry is high enough that they have become "set" in their attitudes, or that experiences gained within industrial environments have been such that vocational students' attitudes have been conditioned to resist change. It might also indicate that these teachers perceive the university environment only as a preparation for a new vocation and that the values held by vocational education students in education, in general, are much like the values held by workers when job training.

He also concluded that "vocational education students who have recently left industry and who have begun teacher education are relatively pragmatic." (Rose, 1967, p. 59)

Krech (1964, pp. 501-522) speaks of a person as developing, over time, an interpersonal response trait of conformity-proneness as that person works with others in his occupation. This trait is, in part, determined by his past experiences together with his social role and his basic personality make-up. This thesis is supported by the researches of Blake, Helson, and Mouton (1957, pp. 204-305); Tuddenham, (1957); and Rosner (1957, pp. 145-146). The following observation of today's other-directed individual is made by Riesman (1961, p. 21).

This mode of keeping in touch with others permits a close behavioral conformity, not through drill in behavior itself, as in the tradition-directed character, but rather through an exceptional sensitivity to the actions and wishes of others.

Krech (1964, p. 501) reports on studies of "professional deformation" that have been made, one of which is a study by W. Waller in 1932 on What Teaching Does to Teachers.

Waller's impressions of teacher personality are summarized by Krech.

There is first that certain inflexibility or unbendingness of personality which is thought to mark the person who has taught . . . and it is said that these traits are carried over by the teacher into his personal relations.

From studies such as above, it appears that professional deformation occurs as the individual internalizes an occupational identification in the course of his entrance into and passage through a series of training institutions. Therefore, there could possibly be a different degree of deformation or deformation of a different kind between the business education teacher who has no work experience and the business education teacher with an industrial or business background. The industrial or business worker who has become a business education teacher could bring with him a somewhat pragmatic viewpoint, a viewpoint that has a factual anchorage; whereas, the business education teacher who has no business or industrial experience brings with him a viewpoint that has a theoretical anchorage. The former teacher must undergo further deformation in order to become a teacher with the possibility of his carrying forward to teaching the trait of conformity-proneness achieved in his previous business or

industrial occupational role. As mentioned previously, the beliefs, values, and preferences developed in working on a specific task, over time, are generalized to other areas of life. (Supra, p. 19) With increasing years of teaching, the vocational business education teacher who has had industrial or business experience would tend to conform to the values, beliefs, and norms of his teaching peers.

Vocational business education teachers, because of their varied past experiences, could quite conceivably differ in the relative importance they place on items of skill or competence and personal attributes. Would teachers with actual work experience and teachers without work experience tend to perceive the two aspects of teaching business education subjects differently?

CHAPTER III

INSTRUMENTATION AND METHODOLOGY

I. INTRODUCTION

From a review of business and educational literature and from an examination of surveys of business, an instrument, the "Competency-Personal Attribute" Opinionnaire was constructed to provide a measure for comparing two groups of vocational business education teachers as to the perceived importance of the technical-social skills required by today's business community. The results obtained depended on the way the items of the Opinionnaire were viewed as to their relative importance by vocational business education teachers with work experience and vocational business education teachers without work experience. The study also proposed to investigate the possibility that, should a difference in perception exist between the two groups of vocational business education teachers, this difference could be attributable to variables such as academic qualifications, source of technical qualifications, years of teaching experience, percentage of time spent in teaching of business education subjects, the business education subjects taught, and sex.

II. INSTRUMENTATION

This study used the Q-technique in the development of the Competency-Personal Attribute Opinionnaire. Until 1948, William Stephenson was the major proponent of the use of the Q-technique to enable one to study groups or individuals objectively and systematically in an interactional setting without regard for norms or individual differences. Stephenson (1953) proposed the use of this technique as the key to investigation of the self-concept, psychoanalytic theory, projective techniques, and the individual personality. The Q-sort, as explained by Cronbach (1953, p. 376) provides

a basis for studying homogeneity of groups . . .
So far as present research indicates, almost
any set of statements can be the basis for
investigations of correlations between persons.

The Q-sort offered a quantitative method for inquiry concerning behavior items signified by nebulous terms often difficult to define and measure. Responses or judgments made to the items on the Q-sort would be more reliable than verbal responses because verbal responses could provide too wide a variety of responses with overlap and ambiguity, reluctance in proffering information, or vacillation on the part of the subject. In sorting, judgment had to be made regarding each item in the context of all the other items. While the subject was allowed to place the cards in accordance with his opinion

of the relative importance of the item, he was forced to place the cards in a specified number of piles that contained a prearranged number of cards; thus forcing him to conform to a quasi-normal distribution. This ensured variance in the responses and eliminated response sets. It also forced subjects to make discriminations that they might not otherwise have made unless forced to do so. The forced sort was found to be as stable as unforced sort and provided more discriminations than were contained in the unforced data. (Block, 1956; Livson and Nichols, 1956) Livson and Nichols (1956) found also that reliability tended to increase as more discriminations were made.

Because Q-sort was a procedure that sacrificed level and dispersion, all scores were ipsative scores. The distributions of any two of the sortings could then be correlated very quickly. Correlations were made between vocational business education teachers with work experience and vocational business education teachers without work experience to find out, by a "gross" measure, if they did indeed as a group tend to emphasize competency and personal attribute items differently. Kerlinger (1965, p. 587) makes the statement that "We 'structure' the Q-sort to test theoretical singular propositions, not characteristics of individuals and individual differences."

Q-sort items relating to dimensions of competencies and personal attributes were used as the frame of reference in this study. As a first step in the construction of items that comprised the Q-sort, 123 items that appeared to be related to competencies and personal attributes were collected from businessmen, graduate vocational education students, and from business education literature. The items collected ranged from direct statements of concrete situations to statements concerning abstract qualities. They were examined carefully and many items were eliminated or revised because they were unclear, ambiguous, or seemed to lack face validity. Of the total parent population of 123 items, 60 were selected for the purpose of this study. The final selection of 60 cards describing 30 competencies and 30 personal attributes was attested to as being important for this study by a graduate student in vocational education with work experience, and a vocational business education teacher. (Appendix A, pp. 71-72) While it appeared that although the item dimensions, Competencies and Personal Attributes, were not themselves mutually exclusive, they tended to become so within context of their categorization by the researcher.

Thirty items were representative of competencies, and 30 items were representative of personal attributes.

(Appendix B, pp. 74-75) Exemplifying competencies were:

(1) typing speed - 50 to 60 words a minute, (2) ability to

use appropriate reference materials, and (3) neatness in work. Among the personal attributes were: (1) training for the handling of and adjustment to authority, (2) flexibility in order to handle crises and problems, and (3) relating of past experiences to present problems. Each of the 60 items was typed on a randomly numbered card which was of a size that permitted easy sorting by the subject.

III. DESCRIPTION OF THE SAMPLE

This study used responses of vocational business education teachers who, at the time of the study, were teaching in secondary schools in the Province of Alberta. A mailing list of business education teachers in Alberta was obtained through the Alberta Business Education Council. Opinionnaires and other relevant material were sent to teachers on the mailing list with the exception of teachers in Edmonton, Alberta. Permission to contact Edmonton vocational business education teachers was not granted to the researcher by the Edmonton Public School Board and the Edmonton Separate School Board because of the lateness in the school term. For this reason, the names of 95 vocational business education teachers were removed from the mailing list. However, it was possible to send opinionnaires to 78 Calgary vocational business education teachers, with 46 of these teachers responding.

Subjects were categorized as follows: (1) vocational business education teachers having a minimum of one year of work experience, and (2) vocational business education teachers with no work experience or less than one year of work experience. There was no differentiation made as to the grade level at which these teachers performed. Information relative to academic qualifications, source of technical qualifications, years of teaching experience, percentage of time spent in the teaching of business education subjects, the business education subjects taught, and sex were collected.

In order to obtain "frank" responses and to preserve anonymity, a covering letter requested that no teacher write his name on the Opinionnaire forms. The material sent to the subjects consisted of a teacher information sheet, a set of sort cards, an instruction sheet for the sorting procedure, a record sheet on which to indicate the number assigned to each card, and a stamped, self-addressed envelope. (Appendix C, pp. 77-80) All material required for the study was sent to the home address of the teacher concerned. The subjects were instructed to sort the card items into nine piles ranking the items, as they perceived them, from the most to least important. They were then asked to record the number for each item on the record sheet in the column which coincided with the numbered pile.

Table I below summarized the responses from the vocational business education teachers who comprised the sample.

TABLE I
SUMMARY OF RESPONSES FROM VOCATIONAL BUSINESS
EDUCATION TEACHERS IN THE SAMPLE

Number of actual Opinionnaires used in this study	100
Number of Opinionnaires returned but not used	60*
Number of Opinionnaires not returned	124
Number of Opinionnaires discarded	6**
Total	290

*See below.

**See Page 40.

The actual sample for this study included 70 vocational business education teachers with work experience and 30 vocational business education teachers without work experience. The total of the actual sample of this study, therefore, was 100 subjects. Of a total number of Opinionnaires sent out, 160 Opinionnaires were completed correctly and returned. This was a return of approximately 57 per cent. From an examination of the source points of the returned Opinionnaires, it was possible to ascertain that the teachers who did not respond were spread randomly throughout the province outside of Edmonton. The group that did not return

the Opinionnaire could not be described by any particular characteristics because there was no information available concerning this group.

Because of the physical limitations imposed in computing a correlation matrix of 160 by 160, it was necessary to reduce the sample size to 100 subjects. Using a table of random numbers, the sample of vocational business education teachers with work experience was reduced from 112 to 70, and the sample of vocational business education teachers without work experience was reduced from 48 to 30. This gave a correlation matrix of 100 subjects by 100 subjects over 60 items. On the other hand, a matrix of 50 subjects by 50 subjects over 60 items would ensure a linear independency of correlations between all items. Therefore, 50 subjects were selected, using a table of random numbers, from the sample of 160 subjects, with 35 of these subjects having work experience and 15 of them having no work experience. In the selection of subjects for the 100-subject sample and the 50-subject sample, the proportion of teachers with work experience to the proportion of teachers without work experience was held constant.

In five instances, teachers failed to complete the Opinionnaire properly; and, in one case, the teacher was too busy at the time to complete the Opinionnaire. These Opinionnaires were discarded.

IV. ANALYSIS

The data obtained from the Opinionnaires were punched on I. B. M. cards and were processed on the 360 I. B. M. Computer at the Department of Computing Science, University of Alberta, using the factor analysis program from the Division of Educational Research Services. t-test ratios were computed to test the difference in proportions of loading on given factors.

CHAPTER IV

PRESENTATION OF FINDINGS

I. INTRODUCTION

The purpose of this study was to investigate whether vocational business education teachers with work experience and vocational business education teachers without work experience perceived differently the technical-social aspects desired of students by business and industry for successful employment in business occupations. In Chapter I, hypotheses were developed from an analysis of the problem. Hypothesis I sought to determine if there was a significant variation or difference in the way these two groups of vocational business education teachers perceived the relative importance of concepts relating to technical-social skills. Hypothesis II was concerned with the relating of such a difference, if found to exist in Hypothesis I, to other variables such as academic qualifications, source of technical qualifications, years of teaching experience, percentage of time spent in the teaching of vocational business education subjects, business education subjects taught, and sex.

Chapter III made reference to the development of the Competency-Personal Attribute Opinionnaire and its purpose in this study. Vocational business education teachers with

and without work experience were asked to sort the 60 items in the Opinionnaire in the order of importance as perceived by them. The statistical procedure used in this study was also outlined.

This chapter restates the hypotheses, describes the methods of testing the hypotheses, and provides tabulations of findings. In this research, z-scores were used to test the significance of differences. The critical level of significance for all calculations in this study was set a priori at 0.05.

II. GROUP ANALYSIS

Testing of Hypothesis I

This hypothesis stated:

Vocational business education teachers with work experience and vocational business education teachers without work experience will rate differently items on the Competency-Personal Attribute Opinionnaire.

In order to obtain a comparison, 112 vocational business education teachers with work experience and 48 vocational business education teachers without work experience who responded to the Opinionnaire sorted 60 cards into 9 piles on the basis of importance of the concepts listed on the cards as perceived by the respondents. Since the factor analysis program available for analysis of data had a maximum N of 100, it was necessary to reduce the size of the sample

submitted for analysis to 100 subjects. This was accomplished by randomly selecting 70 vocational business education teachers with work experience and 30 vocational business education teachers without work experience from the original sample. The same proportion of teachers with work experience to teachers without work experience was maintained in the sample. For these 100 subjects, the results of the sort performed by each of the subjects were correlated with the sorts of every other subject yielding a correlation matrix. The resulting correlation matrix was then subjected to a factor analysis and two factors selected. In addition, quartimax, varimax, and equimax factor rotations were carried out on the principal axes factor. A rotated factor matrix was derived for each rotation.

Upon examining the results of the above analysis to determine whether vocational business education teachers with work experience loaded on a different factor than did the vocational business education teachers without work experience, it was found that the varimax rotation seemed to provide the greatest degree of clustering of subjects on the factors. (Appendix D, p. 82) The other factor matrices were, therefore, disregarded. To compare loading effect of the two groups on the two factors, a cutting score was established for each factor and ratios were computed to indicate the proportion of subjects in each group that fell above the

cutting score. The cutting score used in this study was the mean of the factor loadings for all subjects on each factor.

The proportions of subjects in each of the two groups of business education teachers (vocational business education teachers with work experience and vocational business education teachers without work experience) scoring above the mean cutting score on each of the two factors were computed. The differences between these proportions were tested for significance using z-scores. The size of the groups in the sample was tested to ensure that z-scores could be used. (Ferguson, 1959, p. 147) Tabulation of the results of the testing of this hypothesis is shown in Table II below. A scatter diagram showing the distribution of factor loadings on Factors 1 and 2 is shown in Figure 1 (Appendix E, p. 84).

TABLE II

PROPORTION OF VARIMAX FACTOR LOADINGS ABOVE MEAN
CUTTING SCORE FOR SAMPLE OF 100 VOCATIONAL
BUSINESS EDUCATION TEACHERS

	Factor 1	Factor 2
Work-experience proportion	45/70	37/70
Without-work-experience proportion	14/30	17/30
Significance of difference (z)	n.s	n.s

n.s indicates that the difference is not statistically significant.

The results of the testing of this hypothesis would seem to indicate that the perceptions of the relative importance of items in the Competency-Personal Attribute Opinionnaire were much the same for both groups of teachers.

As there could be some question regarding the validity of a correlation matrix of 100 subjects by 100 subjects over 60 items since the maximum number of unique correlations that could occur was 60 by 60, a new sample of 50 subjects was selected at random from the total population completing the sort. This sample was composed of 35 vocational business education teachers with work experience and 15 vocational business education teachers without work experience. This proportion corresponded to the proportion of vocational business education teachers with work experience and those without work experience in the original sample of 160 subjects. This sample was then treated by the same statistical procedure as that used previously for the sample of 100 subjects. Tabulation of the results of the testing of the 50-subject sample for Hypothesis I is shown in Table III below. A scatter diagram showing the distribution of factor loadings on Factor 1 and Factor 2 for the sample of 50 subjects is shown in Figure 2 (Appendix E, p. 85). The results of the analysis on the sample of 50 subjects did not appear to be different from the results obtained from the initial analysis carried out on the sample of 100 subjects.

TABLE III

PROPORTION OF VARIMAX FACTOR LOADINGS ABOVE MEAN
CUTTING SCORE FOR SAMPLE OF 50 VOCATIONAL
BUSINESS EDUCATION TEACHERS

	Factor 1	Factor 2
Work-experience proportion	24/35	18/35
Without-work-experience proportion	7/15	7/15
Significance of difference (z)	n.s	n.s

n.s indicates that the difference is not statistically significant.

This hypothesis investigated whether vocational business education teachers, because of past experience of work in business or industry, would perceive items relating to competencies and personal attributes differently than would vocational business education teachers without work experience. It was reasoned that past work experience might influence the perception of vocational business education teachers as to the relative importance of items in the Competency-Personal Attribute Opinionnaire. The results obtained, using a sample of 100 subjects and a smaller sample of 50 subjects, both samples being selected randomly from the 160-subject sample, did not indicate that there was any perceived difference between the ranking of items by vocational business education teachers with work experience and vocational business education teachers without work experience.

Testing of Hypothesis II

This hypothesis stated:

If a difference is found to exist between the groups used in the testing of Hypothesis I, is this difference related to such variables as:

- (a) academic qualifications,
- (b) source of technical qualifications,
- (c) years of teaching experience,
- (d) percentage of time spent in the
teaching of business education
subjects,
- (e) business education subjects taught, and
- (f) sex?

The results of the testing of Hypothesis I indicated that statistical analysis of Hypothesis II would not be possible because the above hypothesis was dependent upon the finding of a significant difference in Hypothesis I between vocational business education teachers with work experience and vocational business education teachers without work experience. As Hypothesis I appeared to indicate that no significant difference existed, it was not possible for the researcher to implement testing procedures for Hypothesis II. The frequency distribution of teacher responses to the Teacher Information Sheet by the 160 subjects is shown in Table IV, page 49. Table V on page 50 shows the frequency distribution of responses of the 112 work-experience, vocational business education teachers to questions concerning their work experience.

TABLE IV
FREQUENCY DISTRIBUTION OF TEACHER RESPONSES
TO TEACHER INFORMATION SHEET
(N = 160)

Opinionnaire Items	Work Experience		No Work Experience		Total	
	No.	%	No.	%	No.	%
Level of formal education						
Undergraduate	43	26.88	21	13.12	64	40.00
Bachelor's degree	52	32.75	20	12.25	72	45.00
Diploma	9	5.63	5	3.12	14	8.75
Master's degree	8	5.00	2	1.25	10	6.25
Other degree	29	18.13	8	5.00	37	23.13
Technical skill attainment						
High school	31	19.38	11	6.87	42	26.25
University	74	46.25	34	21.25	108	67.50
Business College	46	28.75	8	5.00	54	33.75
Self-taught	31	19.38	11	6.87	42	26.25
Years of teaching						
1 year	7	4.38	7	4.37	14	8.75
2 years	19	11.88	4	2.50	23	14.38
3 years	19	11.88	4	2.50	23	14.38
4 years	13	8.13	3	1.87	16	10.00
5 years	9	5.63	5	3.12	14	8.75
6 to 10 years	26	16.25	16	10.00	42	26.25
11 to 15 years	12	7.50	3	1.88	15	9.38
over 15 years	7	4.38	6	3.75	13	8.13
Time on business subjects						
100 per cent	81	50.63	24	15.00	105	65.63
75 per cent	19	11.88	7	4.37	26	16.25
50 per cent	3	1.87	9	5.63	12	7.50
25 per cent	9	5.62	8	5.00	17	10.62
Business subjects taught						
Typewriting	80	50.00	42	26.25	122	76.25
Office Practice	41	25.63	11	6.87	52	32.50
Shorthand	40	25.00	13	8.13	53	33.13
Business Machines	16	10.00	8	5.00	24	15.00
Bookkeeping	51	31.88	18	11.25	69	43.13
Other	45	28.13	24	15.00	69	43.13
Position						
Head of department	23	14.38	9	5.62	32	20.00
Sex						
Male	56	35.00	23	14.38	79	49.38
Female	56	35.00	25	15.63	81	50.63

TABLE V

FREQUENCY DISTRIBUTION OF WORK-EXPERIENCE-TEACHER
RESPONSES TO TEACHER INFORMATION SHEET
(N = 112)

Opinionnaire Items	No.	%
Years of work experience		
1 year	14	12.50
2 years	15	13.39
3 years	10	8.93
4 years	11	9.82
5 years	15	13.39
6 to 10 years	22	19.64
11 to 15 years	14	12.50
over 15 years	11	9.82
Kind of position held		
superordinate	30	26.79
subordinate	66	58.93
Recency of work experience		
1 year	0	0.00
2 years	10	8.93
3 years	15	13.39
4 years	10	8.93
5 years	15	13.39
6 to 10 years	36	32.14
11 to 15 years	5	4.46
over 15 years	15	13.39

Discussion of Instrument Used

The Competency-Personal Attribute Opinionnaire, designed on the basis of Stephenson's Q-methodology, was used as a means of obtaining a great number of responses from subjects participating in this study. Q-methodology was used in the Opinionnaire as it allowed a great number of measures per person. Factor analysis allowed the researcher to use a statistical procedure that would obtain from a mass of information a small number of factors or clusters of subjects who gave similar responses. This technique required only that opinionnaire items come from a constellation making up over-all teaching beliefs or attitudes about preparation of vocational business education students for work. The items in this Opinionnaire were concerned with two aspects of the teaching of business education subjects--competencies and personal attributes. The method of rank-ordering of items by subjects was particularly useful since it permitted the extraction of relative attitudes or opinions from among the set of 60 items. The Competency-Personal Attribute Opinionnaire was constructed expressly for this study; but this research did not deal with the development of a measuring instrument.

Limitations

The Competency-Personal Attribute Opinionnaire used in this research could be affected by several uncontrolled variables. It would have been most advantageous to have been able to measure how the teachers actually stressed competencies and personal attributes in the classroom. It was felt by this researcher that this instrument was more a measure of that which was perceived as more or as less important by the subject rather than that which was actually stressed as more or as less important in the classroom. The saliency of the items to the subjects, mechanical errors in reading and sorting, and the length of time spent on the sorting procedure were elements of variability which could not be controlled. Because the Opinionnaire was received through the mail and filled out at a time convenient to the subjects, disruptive factors could have interfered with the ranking of the items.

CHAPTER V

CONCLUSIONS, IMPLICATIONS AND RECOMMENDATIONS

I. SUMMARY OF THE STUDY

Introduction and Purpose

This study attempted to determine whether there was a significant difference in the way vocational business education teachers with and without work experience perceived the demands of the business world. It was hypothesized that the way vocational business education teachers perceived the business world would be related to their preparation for teaching--this preparation being either wholly theoretical or theoretical and practical.

To this end an opinionnaire was constructed in an effort to determine the relative importance teachers with and without work experience placed on items designated by business as important. The Opinionnaire used in this study was composed of items which were categorized into two important facets of the teaching of vocational business education subjects--competencies and personal attributes.

It was further hypothesized that if a difference in perception should exist between the two groups of teachers in vocational business education, this difference might be related to such variables as: academic qualifications, source of technical qualifications, years of teaching experience,

percentage of time spent teaching vocational business education subjects, business education subjects taught, and sex.

The position of vocational business education teacher involves a great measure of responsibility for the transmission of working skills, both competencies and personal attributes, that are required of the secondary-school business education graduate. Knowledge of the technical (competency) and social (personal attribute) aspects of a job or position in the business world is necessary to the vocational business education teacher so he can, in a sense, be a transition agent for the pupils as they prepare to enter the working world. The teacher's knowledge of the business world could evolve from a theoretical and/or a practical base. Chapter II of this study discusses the literature relating to the skills and personal attributes considered necessary for successful participation in work and also literature pertaining to the influence of past experience as it affects the behavior of individuals in society and work.

The Data

One hundred and sixty vocational business education teachers in the Province of Alberta participated in this study. The subjects were asked to sort 60 items composed of 30 items pertaining to competencies and 30 items pertaining

to personal attributes on the basis of perceived importance. The 160 vocational business education teachers consisted of 112 teachers with work experience and 48 with no work experience. From the 160 subjects, a sample of 70 teachers with work experience and 30 with no work experience were randomly selected. All sorts for the 100 subjects were correlated with each other and the correlations were subjected to a factor analysis yielding an unrotated factor matrix and varimax, equimax, and quartimax rotations. The varimax factor matrix for the two groups of teachers in the 100-subject sample was analyzed by testing whether more teachers from one group than the other had factor loadings above the mean of all loadings. The z-test was used as a test of significance. A second analysis was carried out and involved a sample of 50 subjects with 35 teachers of this sample having work experience and 15 of them having no work experience. The 50 subjects were selected at random from the 160 subjects participating in the study. The method of analysis used was the same as that used in the first analysis on 100 subjects.

II. CONCLUSIONS

This section restates the hypotheses and discusses the findings in relation to the hypotheses. The sections entitled "Implications" and "Recommendations" will deal with the inferences drawn from the findings.

Hypothesis I

This hypothesis predicted that vocational business education teachers with work experience and vocational business education teachers without work experience would perform differently on the Competency-Personal Attribute Opinionnaire.

This hypothesis was not supported when using a sample of 100 subjects; nor was it supported when using a sample of 50 subjects. No significant difference was found to exist between vocational business education teachers with work experience and vocational business education teachers without work experience in the samples used in the testing of this hypothesis.

Discussion of Hypothesis I

The results of the testing of this hypothesis, as indicated by the Competency-Personal Attribute Opinionnaire, lead the researcher to question the full adherence by many to the educational philosophy that work experience is essential for vocational business education teachers. As previously stated in Chapter II (Supra. 29-30), too much work experience or work experience of the wrong kind could, in some measure, handicap the vocational business education teacher rather than aid him. With increasing years of teaching, a teacher might possibly tend to conform to the values, beliefs, and norms of his teaching peers. (Supra, pp. 31, 32)

Hypothesis II

This hypothesis predicted that, if a difference was found to exist between the groups used in the testing of Hypothesis I, this difference could be related to variables such as:

- (a) academic qualifications,
- (b) source of technical qualifications,
- (c) years of teaching experience,
- (d) percentage of time spent in the teaching of business education subjects,
- (e) business education subjects taught, and
- (f) sex.

Statistical analysis of Hypothesis II could be implemented only if a significant difference between vocational business education teachers with work experience and vocational business education teachers without work experience was found. Since no such significant difference was found, it was not possible to initiate testing procedures for Hypothesis II.

Summary

The findings of this study showed that, on the basis of two factors in the sample of 100 subjects derived from a factor matrix, 45 out of 70 vocational business education teachers with work experience scored above a mean cutting score, while 14 out of 30 vocational business education teachers without work experience scored above the mean cutting score on Factor 1. Corresponding ratios for Factor 2 indicated that 37 out of 70 vocational business education teachers

with work experience were above the mean cutting score and 17 out of 30 vocational business education teachers without work experience were above the mean cutting score. The differences between corresponding ratios for vocational business education teachers with and without work experience fell below the 0.05 level of significance.

In the sample of 50 subjects, the findings showed that 24 out of 35 vocational business education teachers with work experience scored above a mean cutting score on Factor 1, while 7 out of 15 vocational business education teachers without work experience scored above the mean cutting score on Factor 1. Corresponding ratios for Factor 2 above the mean cutting score were 18 out of 35 vocational business education teachers with work experience and 7 out of 15 vocational business education teachers without work experience. Again, the differences between corresponding ratios for vocational business education teachers with and without work experience fell below the 0.05 level of significance.

In conclusion, this study was not able to isolate any factors characteristic of the groups used in the testing of the hypotheses in this research. This study finds that vocational business education teachers with work experience and vocational business education teachers without work experience do not perceive the concepts and demands of the

business world differently, as measured by the Competency-Personal Attribute Opinionnaire.

III. IMPLICATIONS

The value of a theoretical and/or a practical background for vocational business education teachers has been the subject of much discussion in educational philosophy, yet it has not been the object of many research studies. While the instrument used in this study was unable to differentiate between vocational business education teachers with and without work experience, the researcher feels that such a difference, to some degree, must exist; and it is hoped that this study might help gain additional insights into the desirability of practical work experience for vocational business education teachers.

Perhaps the conclusions have their greatest implication for teacher educators who generally subscribe to the concept that practical work experience is necessary for the successful teaching of vocational business education subjects. Because of the rapid expansion of vocational education accompanied by a rise in demand for vocational teachers, teacher education institutions are pressed to provide the educational facilities to meet this increased demand. As a work-experience requirement could be a time-consuming part of the preparation of the vocational business education

teacher, teacher educators might find it necessary to reexamine this aspect of their philosophy. How much and what kinds of working experiences are most appropriate for vocational business education teachers are questions that are in need of answers.

New programs are being developed to resolve some of the questions concerning work experience for vocational education teachers. At the University of Alberta, the Department of Industrial and Vocational Education has instituted a Route Two vocational education program. (Faculty of Education Calendar, 1967-68, p. 64) As an alternate program for preparation of vocational education teachers, Route Two offers to high school graduates a five-year degree program in vocational education which combines academic and theoretical preparation with practical work experience under supervision by the Department. The ability of this five-year program to use personnel without previous vocational or work experience can conceivably produce a vocational business education teacher who has a combination of the best characteristics of both kinds of vocational business education teachers.

The results of this research might be of help in establishing an empirical basis on which more accurate decisions may be made concerning the qualifications required of vocational business education student teachers for entry

to the university teacher education program. Consideration might be given to such factors as length and variety of work experience required and also recency of work experience. The results of this study might also be of value to teacher education programs when preparing teachers to teach in a meaningful way those things deemed of greatest value in the changing world of business and commerce.

IV. RECOMMENDATIONS

This study has indicated some of the opinions held by vocational business education teachers with and without work experience concerning the relative importance of technical and social skills when preparing students for entry into jobs or positions. A comparison of these two kinds of vocational business education teachers, using two samples, did not reveal any significant difference in perceptions of vocational business education teachers with work experience and those without work experience.

From the conclusions, it is possible to indicate several areas for further research.

1. In viewing the findings of this thesis, the researcher cannot help but recall the position presented by vocational educators in the September, 1964, edition of CIRF (1964, pp. 11, 13) in which it was stated that it is essential for teachers of vocational education to be fully

aware of social, economic, and technological change and that teachers must be able to adapt their teaching to such technological changes as these changes take place in business and industry. Is it possible then that it may not be beneficial for the vocational business education teacher to have had a vast amount of work experience in order to gain such an awareness? It is suggested that such an awareness could be of an all-encompassing nature rather than a working knowledge of one aspect only of the working world. This total awareness might be fostered in a situation where the major areas of industrial or business concepts are presented in a laboratory of the multiple-activity type where numerous and interrelated learning experiences can be structured.

2. The data such as that gathered for this research could be used to provide a mosaic or descriptive picture of the vocational business education teacher, his function in teaching, his educational and occupational background. As is the case with much social data, many of the variables considered in this study are interrelated. It would be beneficial to consider some of these relationships in future research projects concerned with vocational business education teachers.

3. To improve functional relationship between curriculum content and occupational demands, it is possible that an opinionnaire such as the Competency-Personal Attribute

Opinionnaire could be administered to businessmen and to members of advisory committees for business education curriculum to see if they sort in much the same way as do vocational business education teachers. It could also be possible to find out in this manner if teachers are really the best people to make curriculum changes.

Suggestions for Future Research

1. The Q-Sort as it was structured for this study did not prove to be wholly successful because of a lack of sensitivity. The researcher felt that a more discriminatory questionnaire could be developed with a more careful sampling of items, thus providing a finer degree of distinction between the two categories of respondents.

2. Techniques, other than Q-Sort, might be explored-- techniques such as Critical Incident and case study. Future researchers are cautioned not to accept the conclusions of this research until other techniques have been explored.

3. A lack of any significant difference in Hypothesis I precluded any formal analysis of Hypothesis II, but its description has been included in this research with the hope that it will be of value to future investigators.

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APPENDIX A

Edmonton Public School Board

ROSS SHEPPARD COMPOSITE HIGH SCHOOL

A. E. HENDERSON, M.A., B.COM.
PRINCIPAL

13546 - 111 AVENUE
EDMONTON, ALBERTA

February 26, 1967

Mrs. Doris C. Gemeroy
209 Garneau Towers
8510 - 111 Street
Edmonton, Alberta

Dear Mrs. Gemeroy;

I have carefully examined the set of 60 cards that you prepared. The personal attributes and competencies are certainly necessary for a successful office worker, depending on the student's field of specialization in the secondary school.

I have taught all business education subjects, except two, offered in the secondary schools of Alberta and feel I can speak with some authority as to the type of background required of business graduates. A broad background of preparation--not just typing and shorthand or just bookkeeping--is necessary for our automated business office of today.

On the basis of my 18 years of teaching business education subjects with related business experience, I can confidently say you have formulated an exceptionally fine list of desirable competencies and personal qualities of an office worker.

Yours truly,



R.W. SMITH,
Business Education Department Head

dj

8221 - 154 Street
Edmonton, Alberta
April 10, 1967

Mrs. Doris C. Gemeroy
209, 8510 - 111 Street
Edmonton, Alberta

Dear Mrs. Gemeroy

I have completed the examination of the sixty (60) cards you plan to use in your research study.

A careful study of these cards has convinced me that the concepts identified on the cards are an accurate representation of the principles and subject content of the business education courses taught in the secondary schools of Alberta.

I would also like to add that it is my personal and professional opinion that your study is one that is long overdue and will provide us with much meaningful and valuable information.

Yours sincerely

A handwritten signature in cursive script, reading "Eric N. Newton".

Eric N. Newton
Graduate Student in
Vocational Education

dsr

APPENDIX B

Q-SORT ITEMS

COMPETENCIES

- 03 Knowledge of business fundamentals
- 04 Ability to proofread
- 05 Punctuality
- 08 Elementary knowledge of bookkeeping
- 12 Typing production
- 14 Remembering and spelling people's names
- 15 Ability to realign typed material and make neat corrections
- 17 Attention to detail
- 19 Legibility in writing words, numerals, and symbols
- 20 Completing of assignments on time
- 23 Experience in typing stencils and masters
- 24 Knowledge of short-cuts
- 31 Taking of shorthand dictation - 100 to 120 words a minute
- 33 Ability to arrange material alphabetically and to file correctly
- 34 Clarity of speech
- 37 General knowledge
- 38 Experience in operating duplicating machines
- 39 Ability to read and write with understanding
- 40 Spelling
- 43 Use of adding machines and calculators
- 44 Typing speed - 50 to 60 words a minute
- 45 Ability to transcribe shorthand notes
- 47 Knowledge of all main filing systems
- 49 Neatness in work
- 52 Ability to use appropriate reference materials
- 53 Planning of work
- 54 Use of dictation machines
- 55 Typing speed - 40 to 50 words a minute
- 56 Taking of shorthand dictation - 80 to 100 words a minute
- 60 Speed and accuracy in arithmetic fundamentals

Q-SORT ITEMS

PERSONAL ATTRIBUTES

- 01 Respect for public's wishes
- 02 Awareness of others' reactions
- 06 Ability to think for oneself
- 07 Sense of humor
- 09 Good attendance record
- 10 Training for the handling of and adjustment to
authority
- 11 Acceptance of constructive criticism
- 13 Businesslike manner
- 16 Grooming and posture
- 18 Personal hygiene
- 21 Mental alertness
- 22 Discretion
- 25 Good interpersonal relations
- 26 Ability to anticipate requests
- 27 Ability to meet the public
- 28 Self-confidence
- 29 Capacity to admit errors
- 30 Relating of past experiences to present problems
- 32 Minimizing of annoying habits (Example - gum chewing)
- 35 Telephone personality
- 36 Flexibility in order to handle crises and problems
- 41 Ability to carry out assignments with minimum
instruction
- 42 Courtesy
- 46 Positive attitude
- 48 Willingness to learn
- 50 Self-control
- 51 Tact
- 57 Ability to work with minimum supervision
- 58 Honesty and integrity
- 59 Sense of responsibility

APPENDIX C

FACULTY OF EDUCATION
DEPARTMENT OF INDUSTRIAL AND
VOCATIONAL EDUCATION



THE UNIVERSITY OF ALBERTA
EDMONTON, ALBERTA, CANADA

May, 1967

Dear Colleague:

The enclosed Opinionnaire is part of a preliminary study to determine the opinions of business education teachers concerning the relative importance placed on competencies and personal attributes in preparing students for entry into business occupations. It is not intended to measure the effectiveness of any teacher; rather, it is to provide information as to the relative emphasis actually being placed on various items of competencies and personal attributes.

If a large enough sample of teachers' opinions can be obtained, it may indicate an area for further research. You will note that your name is not required on either form that is to be completed. The Opinionnaire is entirely anonymous.

The Opinionnaire consists of the following parts:

- Form A - Teacher Information Sheet
- Form B - Instruction Sheet
- Sort Cards
- Form C - Record Sheet
- A stamped, self-addressed envelope

Forms A and C are to be returned in the stamped, self-addressed envelope that is provided for your convenience. Form B and the Sort Cards are not to be returned.

May I express my sincere thanks for the time and consideration you give to the Opinionnaire, especially at this time of the year when demands on your time are heavy.

Yours truly,

(Mrs.) Doris C. Gemeroy
Graduate Student

DG/kpm

Enclosures 5

TEACHER INFORMATION SHEET

Please check (✓) appropriate items or specify where indicated.

ACADEMIC QUALIFICATIONS

a. Level of formal education:

Undergraduate

Diploma

Bachelor's degree

Master's degree

If degree is other than Bachelor of Education, state.

b. Where did you learn or gain knowledge in the basic skills necessary to teach business education subjects?

High school

Business college

University

Self taught

YEARS OF TEACHING

a. Total years of teaching business education subjects, including 1966-67:

1 year

5 years

2 years

6 to 10 years

3 years

11 to 15 years

4 years

over 15 years

b. Percentage of teaching time spent on business education subjects:

100 per cent

50 per cent

75 per cent

25 per cent

c. List the business education subjects that you are teaching this year:

d. If you are Head of the Department, please check.

BUSINESS EXPERIENCE

a. Years of business experience in business or industry, excluding temporary or part-time positions of less than one-year duration:

0 years

5 years

1 year

6 to 10 years

2 years

11 to 15 years

3 years

over 15 years

4 years

b. Indicate the kinds of positions you have held, if any:

RECENCY OF BUSINESS EXPERIENCE

Time that has elapsed since you last worked in industry or in business:

1 year

5 years

2 years

6 to 10 years

3 years

11 to 15 years

4 years

over 15 years

PERSONAL DATA

Sex:

Male

Female

INSTRUCTION SHEET

1. Enclosed are 60 cards.
2. The cards have items concerning competencies and personal attributes that are related to the teaching of and preparing of business education students for entry into business occupations.
3. Before you start to sort, READ all of the cards quickly. You will be sorting the cards in the order of importance as ACTUALLY EMPHASIZED in your own classroom.
4. Sort the cards into three piles as follows:

VERY IMPORTANT	IMPORTANT	LESS IMPORTANT
11 cards	38 cards	11 cards
5. Now sort the VERY IMPORTANT pile of cards into 3 piles as follows:

No. 1	No. 2	No. 3
-------	-------	-------

Place the 2 cards evaluated as most important in Pile No. 1.
Place the 3 cards evaluated as next most important in Pile No. 2.
Place the 6 cards evaluated as next most important in Pile No. 3.
6. In the upper right-hand corner of each card is a number. Write these numbers in the corresponding squares in Columns 1, 2, and 3 on the Record Sheet (Form C).
7. Now sort the IMPORTANT pile of cards into 3 piles as follows:

No. 4	No. 5	No. 6
-------	-------	-------

Place the 11 cards evaluated as most important in Pile No. 4.
Place the 16 cards evaluated as next most important in Pile No. 5.
Place the 11 cards evaluated as next most important in Pile No. 6.
8. Record the numbers that are on the upper right-hand corners of these cards in the corresponding squares in Columns 4, 5, and 6 on the Record Sheet (Form C).
9. Now sort the LESS IMPORTANT pile of cards into 3 piles as follows:

No. 7	No. 8	No. 9
-------	-------	-------

Place the 6 cards evaluated as most important in Pile No. 7.
Place the 3 cards evaluated as next most important in Pile No. 8.
Place the 2 cards evaluated as next most important in Pile No. 9.
10. Record the numbers that are on the upper right-hand corners of these cards in the corresponding squares in Columns 7, 8, and 9 on the Record Sheet (Form C).

RECORD SHEET

[illegible]

1

Most
Important

८

5

5

7

88

9

Les

Important

APPENDIX D

VARIMAX ROTATED FACTORS

SUB- JECT	FACTOR 1	FACTOR 2	COMMUNA- LITIES	SUB- JECT	FACTOR 1	FACTOR 2	COMMUNA- LITIES	SUB- JECT	FACTOR 1	FACTOR 2	COMMUNA- LITIES
1	0.814	-0.153	0.686	34	-0.072	0.586	0.349	67	0.425	0.465	0.397
2	0.425	0.389	0.332	35	0.600	0.242	0.419	68	0.027	0.583	0.341
3	0.103	0.276	0.087	36	0.201	0.450	0.243	69	0.047	0.518	0.271
4	0.726	-0.063	0.531	37	0.287	0.429	0.266	70	0.677	0.127	0.475
5	0.128	0.414	0.187	38	0.272	0.142	0.094	71	0.251	0.407	0.229
6	0.437	0.401	0.352	39	-0.018	0.609	0.372	72	0.561	0.296	0.403
7	0.024	0.242	0.059	40	0.404	0.483	0.396	73	0.340	0.343	0.233
8	0.345	0.453	0.325	41	0.063	0.377	0.146	74	-0.414	0.579	0.507
9	0.429	0.624	0.573	42	0.590	0.366	0.482	75	0.632	0.158	0.424
10	0.168	0.010	0.028	43	0.725	0.305	0.618	76	0.560	0.232	0.368
11	-0.503	0.252	0.316	44	0.293	0.453	0.291	77	0.607	0.454	0.574
12	0.613	0.266	0.447	45	0.738	0.233	0.599	78	0.793	0.151	0.651
13	0.682	0.054	0.467	46	0.194	0.445	0.236	79	0.624	0.226	0.441
14	0.254	0.449	0.266	47	0.759	0.231	0.630	80	0.508	0.012	0.258
15	0.333	0.613	0.487	48	0.569	0.084	0.331	81	0.845	0.153	0.738
16	-0.028	0.571	0.327	49	0.587	0.098	0.354	82	0.809	-0.009	0.655
17	0.531	0.303	0.373	50	0.634	0.336	0.515	83	0.056	0.255	0.068
18	-0.053	0.466	0.220	51	-0.411	0.388	0.320	84	0.629	0.353	0.520
19	0.645	0.232	0.470	52	0.805	0.061	0.652	85	0.465	0.414	0.388
20	-0.330	0.461	0.322	53	0.598	0.309	0.453	86	0.351	0.542	0.417
21	0.532	0.308	0.378	54	0.401	0.255	0.226	87	0.559	0.300	0.402
22	0.592	0.301	0.441	55	0.445	0.509	0.457	88	0.432	0.517	0.454
23	0.708	0.273	0.575	56	0.535	0.078	0.292	89	0.403	0.424	0.342
24	-0.009	0.365	0.133	57	0.557	0.312	0.407	90	0.099	0.506	0.266
25	0.122	0.641	0.426	58	0.563	0.454	0.524	91	0.584	0.191	0.377
26	0.644	0.530	0.696	59	0.690	-0.090	0.484	92	0.334	0.419	0.287
27	0.702	0.406	0.657	60	0.668	0.352	0.570	93	0.414	0.418	0.346
28	0.376	0.462	0.354	61	0.518	0.234	0.323	94	0.415	0.452	0.377
29	0.368	0.545	0.432	62	0.735	-0.053	0.544	95	-0.169	0.547	0.328
30	0.161	0.366	0.160	63	0.269	0.393	0.227	96	-0.406	0.403	0.327
31	0.085	0.588	0.353	64	0.836	0.170	0.728	97	0.545	0.062	0.301
32	0.284	0.384	0.228	65	0.081	0.606	0.373	98	0.144	0.565	0.340
33	0.611	0.025	0.374	66	0.773	0.292	0.683	99	0.432	-0.113	0.200
								100	0.772	0.151	0.619
									24.827	14.165	38.992

Note: 1 - 30 without work experience; 31 - 100 with work experience

APPENDIX E

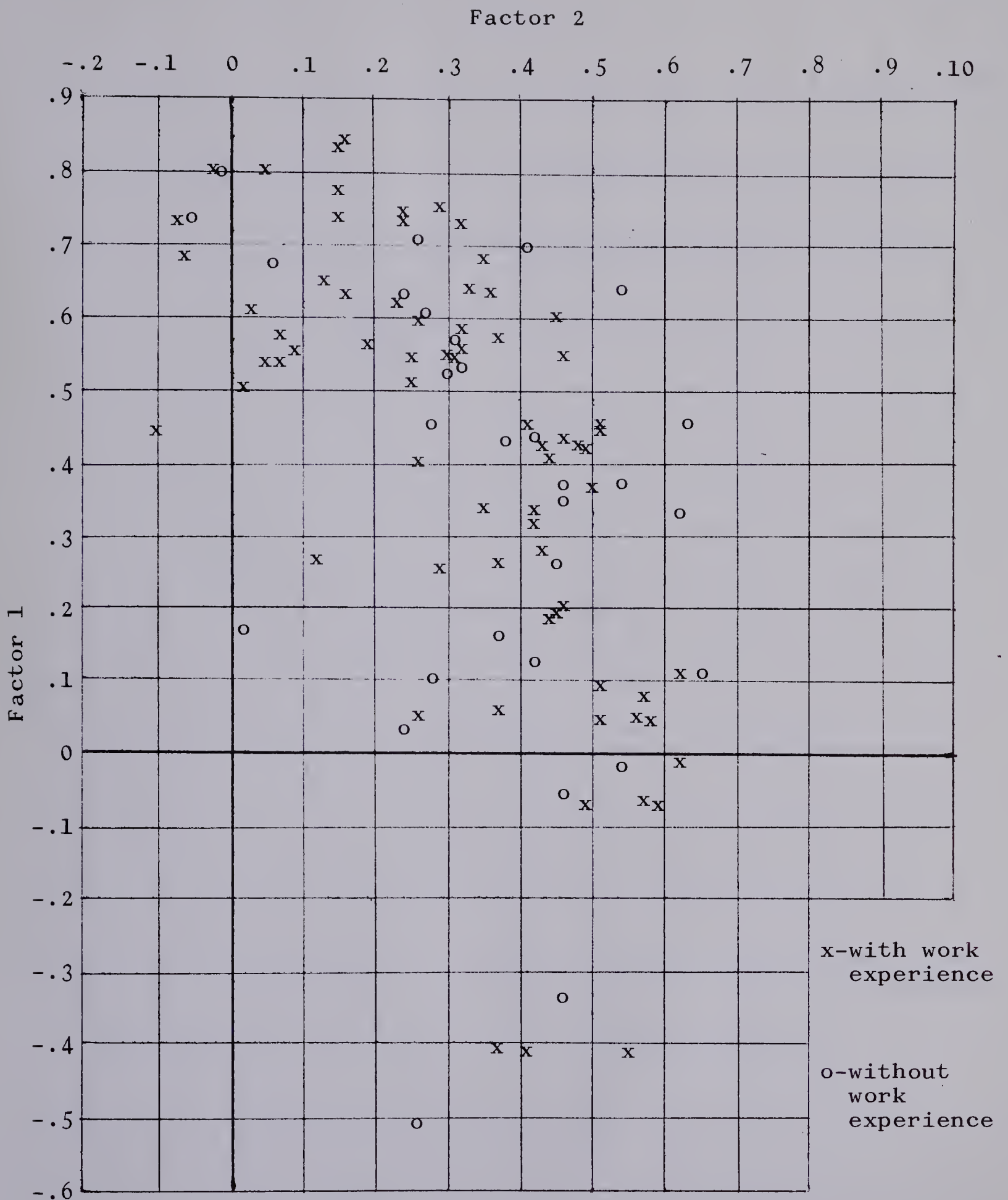


FIGURE 1
DISTRIBUTION OF FACTOR LOADINGS
(N = 100)

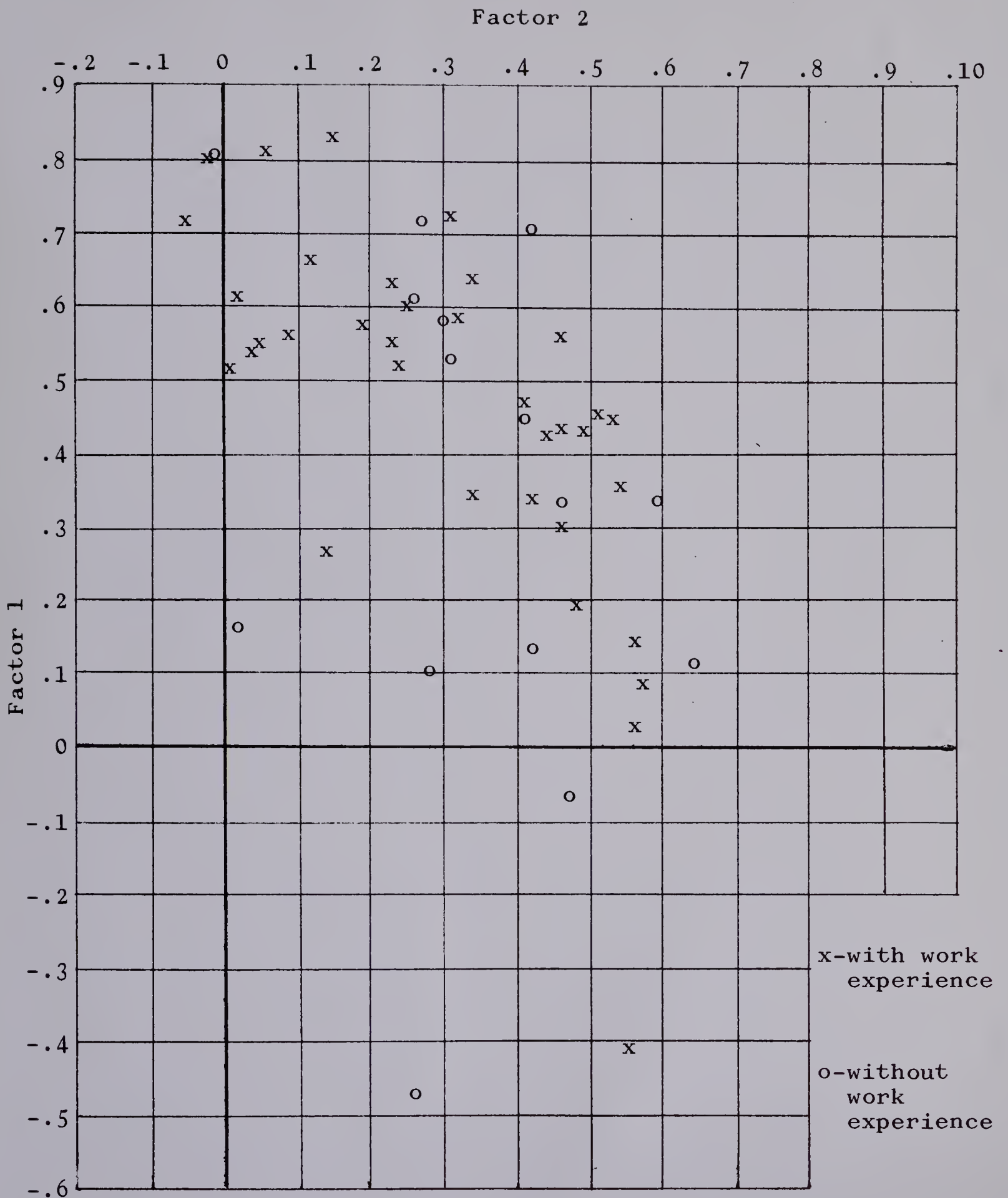


FIGURE 2
DISTRIBUTION OF FACTOR LOADINGS
(N = 50)

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